

**UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF WISCONSIN**

NALCO COMPANY LLC, ECOLAB INC.,  
HAZELMERE RESEARCH LTD., ECOLAB  
USA INC., NALCO HOLDING COMPANY,  
NALCO U.S. 2 INC., and MOBOTEC AB,  
LLC,

Plaintiffs,

v.

WISCONSIN PUBLIC SERVICE  
CORPORATION d/b/a WESTON POWER  
PLANT (UNIT 3), and ARBOR FUELS  
COMPANY LLC,

Defendants.

WISCONSIN PUBLIC SERVICE  
CORPORATION d/b/a WESTON POWER  
PLANT (UNIT 3), and ARBOR FUELS  
COMPANY LLC,

Counterclaimants,

v.

NALCO COMPANY LLC and HAZELMERE  
RESEARCH LTD.,

Counterclaim Defendants.

Civil Action No.: 3:18-CV-279

**FILED UNDER SEAL**

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*(Related case caption follows on next page)*

**DEFENDANTS' SUPPLEMENTAL PROPOSED FINDINGS OF FACT IN OPPOSITION  
TO PLAINTIFFS' MOTION FOR SUMMARY JUDGMENT**

NALCO COMPANY LLC, ECOLAB INC.,  
HAZELMERE RESEARCH LTD., ECOLAB  
USA INC., NALCO HOLDING COMPANY,  
NALCO U.S. 2 INC., and MOBOTEC AB,  
LLC,

Plaintiffs,

v.

WISCONSIN POWER AND LIGHT  
COMPANY, WISCONSIN PUBLIC SERVICE  
CORPORATION, MADISON GAS AND  
ELECTRIC COMPANY, d/b/a COLUMBIA  
ENERGY CENTER (UNIT 1), and PORTAGE  
FUELS COMPANY LLC,

Defendants.

WISCONSIN POWER AND LIGHT  
COMPANY, WISCONSIN PUBLIC SERVICE  
CORPORATION, MADISON GAS AND  
ELECTRIC COMPANY, d/b/a COLUMBIA  
ENERGY CENTER (UNIT 1), and PORTAGE  
FUELS COMPANY LLC,

Counterclaimants,

v.

NALCO COMPANY LLC and HAZELMERE  
RESEARCH LTD.,

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Civil Action No.: 3:18-CV-280

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**DEFENDANTS' SUPPLEMENTAL PROPOSED FINDINGS OF FACT IN OPPOSITION  
TO PLAINTIFFS' MOTION FOR SUMMARY JUDGMENT**

**I. Columbia Unit 1 License**

900.

[REDACTED]

[REDACTED]

901.

[REDACTED]

[REDACTED]

902.

[REDACTED]

[REDACTED]

903.

[REDACTED]

[REDACTED]

904.

[REDACTED]

[REDACTED]

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<sup>1</sup> In order to avoid duplicate numbered paragraphs between Defendants' first and supplemental proposed findings of fact, Defendants' supplemental proposed findings of fact begin with PFF ¶ 900.

905. [REDACTED]

[REDACTED]

906. [REDACTED]

[REDACTED]

907. [REDACTED]

[REDACTED]

908. [REDACTED]

[REDACTED]

909. [REDACTED]

[REDACTED]

[REDACTED]

910.

[REDACTED]

[REDACTED]

911.

[REDACTED]

[REDACTED]

[REDACTED]

912.

[REDACTED]

[REDACTED]

[REDACTED]

913.

[REDACTED]

[REDACTED]

[REDACTED]

914. [REDACTED]

[REDACTED]

915. [REDACTED]

[REDACTED]

916. [REDACTED]

[REDACTED]

917. [REDACTED]

917A.

918.

919.

920.

921.

922.

[REDACTED]

923. [REDACTED]

[REDACTED]

## **II. Nalco-Chem-Mod Relationship**

924. David Johnson was the Nalco executive responsible for the Chem-Mod relationship until the end of 2013.

Case 279 D.I. # 60, Case 280 D.I. # 64, Johnson Dep. 275:21–277:23; 363:21–366:20; 379:16–380:4; Case 279 D.I. # 90, Case 280 D.I. # 95, Mark Decl. (Apr. 16, 2019) Ex. 68, “Nalco Mobotec Tax Code Overview,” at NALC00285835.

925. [REDACTED]

[REDACTED]

926. Nalco has on at least three separate occasions declined to make a corporate designee available to testify in these cases about the Confidentiality Agreement between Nalco and Chem-Mod.

Case 279 D.I. # 60, Case 280 D.I. # 64, Johnson Dep. 224:24–225:7; Case 279 D.I. # 62, Case 280 D.I. # 67, Meier Dep. (Feb. 12, 2019) 10:17–12:18; Case 279 D.I. # 90, Case 280 D.I. # 95, Mark Decl. (May 14, 2019) Ex. 212, Defendants’ 30(b)(6) Notice to Nalco, Topics ¶ 8(b); Case 279 D.I. # 90, Case 280 D.I. # 95, Mark Decl. (May 14, 2019) Ex. 213, Case 280 Defendants’ 30(b)(6) Notice to Nalco, Topics ¶ 8(b); Case 279 D.I. # 127, Case 280 D.I. # 132, Meier Dep. (Apr. 26, 2019) 263:2–25.

927. [REDACTED]

[REDACTED]

928. [REDACTED]

[REDACTED]



929. [REDACTED]  
[REDACTED]

[REDACTED]

### **III. Nalco's Forbearance**

930. [REDACTED]  
[REDACTED]

[REDACTED]

931. [REDACTED]  
[REDACTED]

[REDACTED]

932. [REDACTED]  
[REDACTED]

[REDACTED]

933.

#### IV. Coal and Coal-Fired Power Plants

934. In the portion of the book *Steam* that Plaintiffs attached to their Second Amended Complaints in these cases, the text states that in a coal-fired power plant, the economizer “increases the temperature of the water entering the steam drum.”

Case 279 D.I. # 35–15, Case 280 D.I. # 38–15, *Steam Generation: An Overview*, in *STEAM: ITS GENERATION AND USE* (Steven C. Shultz and John B. Kotto eds., 40th ed. 1992), at 1-8.

935. The use of the descriptive term “flue” as a modifier in the term “coal combustion gas” can be used to create the more precise term “coal combustion flue gas,” which specifies precisely the type of combustion gas that is being treated.

Case 279 D.I. # 76, Case 280 D.I. # 82, Second Wilcox Report ¶ 17.

935A. Plaintiffs’ expert witness, Andrew Fry, opined in his First Expert Report that the term “‘flue gas’ in general would at the time [2002] have been understood to refer to the results of combustion of whatever substance is being combusted.”

Case 279 D.I. # 72, Case 280 D.I. # 78, First Fry Report ¶ 97.

935B. Defendants’ expert witness, Jennifer Wilcox, opined that the inclusion of the language “negative values for the free energy of formation,” along with the range of temperature values laid out in the ’692 Patent’s specification, suggest that flue gas does not exist in particularly hot sections of the boiler.

Case 279 D.I. # 75, Case 280 D.I. # 81, First Wilcox Report ¶ 68.

935C. Plaintiffs’ expert witness, Andrew Fry, stated in his first expert report:

In my opinion, a person of skill in the art at the time of the invention would understand that “injection” of a bromine precursor into the “flue gas” occurs regardless of whether the compound being injected has been mixed with coal before injection. A person of ordinary skill in the art would not read the teachings of the ’692 Patent to limit the claimed injecting step to a bromine precursor alone or excluding a mixture of coal.

Case 279 D.I. # 72, Case 280 D.I. # 78, First Fry Report ¶ 118.

935D. Defendants' expert witness, Jennifer Wilcox, opined that

Under the Plaintiffs' understanding of the claims, combustion of any coal that contains bromine would be injection [sic] into the flue gas of a thermolabile molecular bromine precursor, because some of the bromine naturally present in the coal will be decomposed, and volatized, upon combustion in a coal-fired furnace.

Case 279 D.I. # 75, Case 280 D.I. # 81, First Wilcox Report ¶ 190.

935E. Plaintiffs' expert witness, Andrew Fry, admitted at his deposition that the use of naturally occurring bromine "treats" flue gas by reacting with the mercury in the flue gas, just like separately added bromine.

Case 279 D.I. # 71, Case 280 D.I. # 77, Fry Dep. 54:23–56:21.

936.

[REDACTED]

[REDACTED]

[REDACTED]

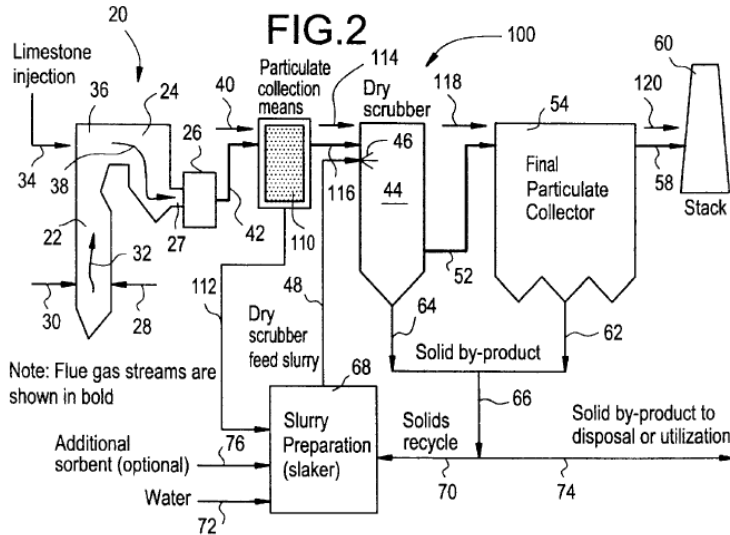
937. Defendants' expert witness, Jennifer Wilcox, testified that the illustration [REDACTED] is a "cartoon" and therefore could not be analyzed with specificity.

Case 279 D.I. # 69, Case 280 D.I. # 74, Wilcox Dep. 78:12–23; 128:13–129:3.

938. U.S. Patent No. 6,206,685 to Zamansky teaches that combustion flue gas forms from combustion.

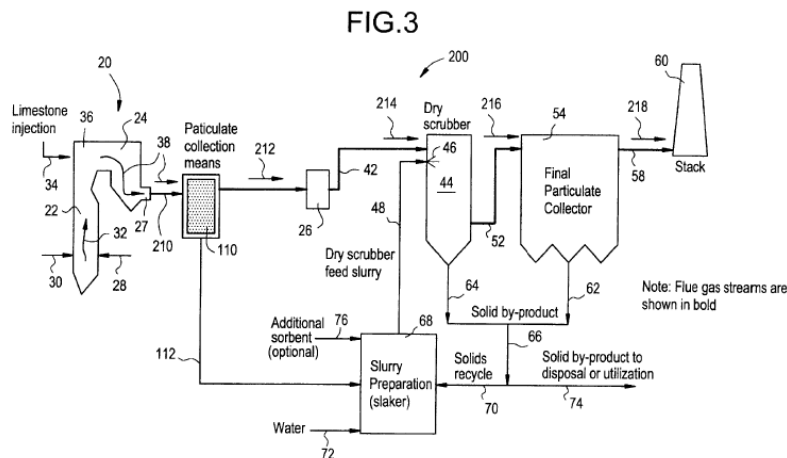
Case 279 D.I. # 76, Case 280 D.I. #82, Second Wilcox Report ¶ 42.

939. U.S. Pat. No. 5,814,288 contains the following image, labeled as Figure 2:



Case 279 D.I. # 104, Klingman Decl. Ex. 34, at sheet 1.

940. U.S. Pat. No. 5,814,288 contains the following image, labeled as Figure 3:



Case 279 D.I. # 104, Klingman Decl. Ex. 34, at sheet 2.

941. Defendants' expert witness, Jennifer Wilcox, testified that adding MerSorb and S-Sorb to coal and then pulverizing the coal creates a complex new chemical form.

Case 279 D.I. # 76, Case 280 D.I. # 82, Second Wilcox Report ¶ 91.

942. At Dr. Wilcox's deposition, Plaintiffs' counsel asked her to consider hypothetically whether the Columbia plant would infringe claim 1 of the '692 Patent if the Court accepted Plaintiffs' proposed claim construction.

Case 279 D.I. # 69, Case 280 D.I. # 74, Wilcox Dep. 192:6–193:15.

943. U.S. Patent 5,814,288 to Madden states, "Injection at higher temperatures causes 'dead burning,' which decreases sorbent reactivity. Injection at lower temperatures inhibits calcination which also reduces sorbent reactivity."

Case 279 D.I. # 104, Klingman Decl. Ex. 34, '288 Patent, at 1:67–2:2.

## **V. Arguments of the Patent Owner (Hazelmere)**

944. During the appeal from the reexamination of the '692 Patent, patent owner Hazelmere stated "[c]laims must be given 'their broadest reasonable interpretation in light of the specification.'"

Case 279 D.I. # 35-9, Case 280 D.I. # 35-9, Respondent Hazelmere's Brief (Dec. 20, 2012), at 409.

- 944A. Although Dr. Fry was aware, when writing his First Report, of the Patent Owner's statements made during the appeal from the reexamination of the '692 Patent, Dr. Fry only addressed them as follows:

My opinion [of the meaning of the term flue gas] does not change after review of one particular statement made during the reexamination process that has been part of the claim scope contentions between the parties; namely the statement made during the reexamination in Respondent's Brief (Oehr Depo. Exhibit 21, p. 6).

Case 279 D.I. # 72, Case 280 D.I. # 78, First Fry Report ¶ 113 (citing Case 279 D.I. # 35-9, Respondent Hazelmere's Brief (Dec. 20, 2012), at 408).

## **VI. Other Patents**

945. The specification of the '692 Patent cites and discusses U.S. Patent No. 6,328,939 to Amrhein.

Case 279 D.I. # 35-1, Case 279 D.I. # 38-1, '692 Patent at 2:16–25, 9:18–20.

946. Amrhein Patent No. 6,328,939 states "[t]he present invention relates generally to the field of flue gas cleanup methods . . . and, in particular, to a method for removing mercury from the flue gas generated during the combustion of fossil fuels or solid wastes."

Case 279 D.I. # 90, Case 280 D.I. # 95, Mark Decl. (May 14, 2019) Ex. 235, U.S. Patent No. 6,328,939 at 1:14–17.

947. The specification of the '692 Patent cites and discusses U.S. Patent No. 6,248,217 to Biswas.

Case 279 D.I. # 35-1, Case 279 D.I. # 38-1, '692 Patent at 2:8–15.

948. Biswas Patent No. 6,248, 217 states “[t]his invention relates to preventing air emissions of heavy metal species . . . from a variety of different sources (e.g., combustion sources, coal combustion, incineration, chemical process industry and others).”

Case 279 D.I. # 90, Case 280 D.I. # 95, Mark Decl. (May 14, 2019) Ex. 236, U.S. Patent No. 6,248,217 at 1:13–17.

949. Plaintiffs’ expert witness, Andrew Fry, admitted that the '692 Patent specification makes no reference to practicing the claimed invention by adding the thermolabile molecular bromine precursor to the coal, or to injecting it into the combustion zone.

Case 279 D.I. # 71, Case 279 D.I. # 77, Fry Dep. 173:22–174:19.

## **VII. Filing Dates**

950. Defendants filed their Invalidity Contentions on December 17, 2018.

Case 279 D.I. # 104, Klingman Decl. Ex. 41, (Defendants’ Invalidity Contentions).

951. The First Wilcox Report was completed and signed by Dr. Wilcox on January 29, 2019.

Case 279 D.I. # 75, Case 280 D.I. # 81, First Wilcox Report.

952. The Second Wilcox Report was completed and signed by Dr. Wilcox on March 6, 2019.

Case 279 D.I. # 76, Case 280 D.I. # 82, Second Wilcox Report.

953. The Third Wilcox Report was completed and signed by Dr. Wilcox on March 15, 2019.

Case 279 D.I. # 77, Case 280 D.I. # 83, Third Wilcox Report.

Dated: May 14, 2019

/s/ Kristin Graham Noel

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**CERTIFICATE OF SERVICE**

I hereby certify that on May 14, 2019, I caused to be electronically filed the foregoing document with the Clerk of Court using the Court's CM/ECF system, which will send notification of such filing to all counsel of record.

/s/ Kristin Graham Noel  
Kristin Graham Noel